

CLAIMS

1. A support for an exhaust gas purification catalyst comprising: a porous catalyst base material and a metal oxide support layer coated onto the inner surface of the pores of said porous catalyst base material, the surface of said metal oxide support layer having mesh-like cracks.

2. A production method of a support for an exhaust gas purification catalyst according to claim 1 comprising: impregnating a solution of an acidic metal salt inside the pores of the porous catalyst base material followed by reacting with an alkaline solution and firing to form the metal oxide support layer.

3. A production method of a support for an exhaust gas purification catalyst according to claim 1 comprising: impregnating a sol solution, which is obtained by hydrolyzing and partially condensing a metal alkoxide, into the pores of the porous catalyst base material, followed by firing to form the metal oxide support layer.

4. A production method of a support for an exhaust gas purification catalyst according to claim 1 comprising: impregnating a solution of an acidic metal salt and a solution obtained by hydrolyzing and partially condensing a metal alkoxide into the pores of the porous catalyst base material followed by firing to form the metal oxide support layer.

5. A production method according to any of claims 2, 3 or 4 wherein the solution impregnated into the pores of the porous catalyst base material has a solid portion concentration of 10-40 wt%.

6. A support for an exhaust gas purification catalyst comprising: a porous catalyst base material and a metal oxide support layer coated onto the inner surface of the pores of said porous catalyst base material, said metal oxide support layer being a porous layer having an average pore diameter of 10 nm or more.

7. A support for an exhaust gas purification catalyst comprising: a porous catalyst base material and a metal oxide support layer coated onto the inner surface of the pores of said porous catalyst base material, said  
5 metal oxide support layer being a porous layer having an average pore diameter of 10 nm or more, and the surface of said metal oxide support layer having mesh-like cracks.

8. A production method of a support for an exhaust  
10 gas purification catalyst according to claims 6 or 7 comprising: impregnating a solution of an acidic metal salt, and a solution containing one or more types selected from the group consisting of polymer that dissolves in that solution, polymer powder and  
15 surfactant, into the pores of the porous catalyst base material, followed by reacting with an alkaline solution and firing to form the metal oxide support layer.

9. A production method of a support for an exhaust gas purification catalyst according to claims 6 or 7  
20 comprising: impregnating a sol solution obtained by hydrolyzing and partially condensing a metal alkoxide, and a solution containing one or more types selected from the group consisting of polymer that dissolves in that solution, polymer powder and surfactant, into the pores  
25 of the porous catalyst base material followed by firing to form the metal oxide support layer.

10. A production method of a support for an exhaust gas purification catalyst according to claims 6 or 7  
30 comprising: impregnating a mixed solution of a solution of an acid metal salt and a sol solution obtained by hydrolyzing and partially condensing a metal alkoxide, and a mixed solution containing one or more types selected from the group consisting of polymer that dissolves in that mixed solution, polymer powder and  
35 surfactant, into the pores of the porous catalyst base material followed by firing to form the metal oxide support layer.

11. A production method according to any of claims 8, 9 or 10 wherein, the solution impregnated into the pores of the porous catalyst base material has a solid portion concentration of 10-40 wt%.